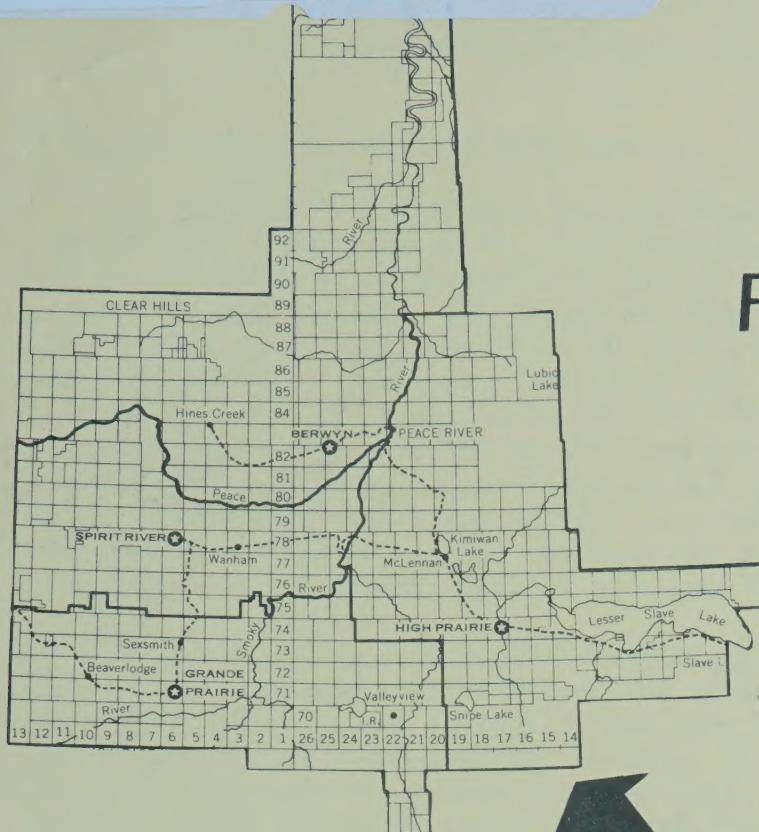


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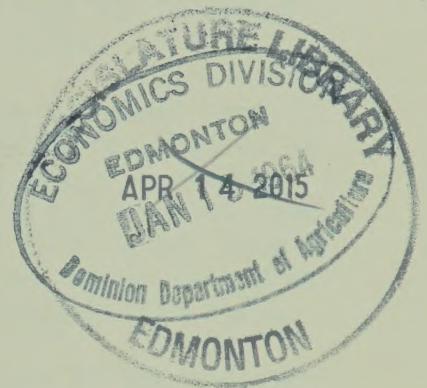
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ALBERTA FARM BUSINESS REPORT

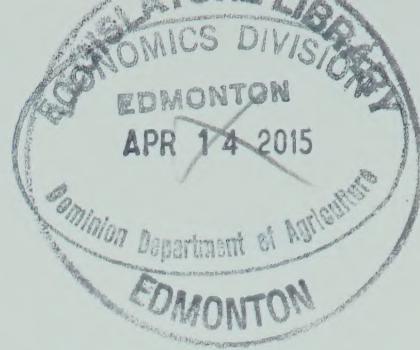
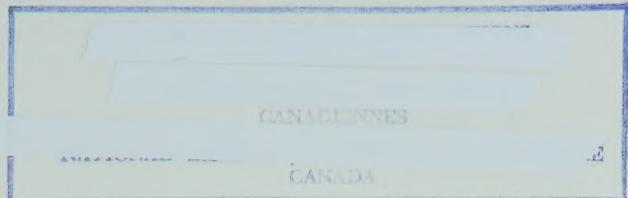


1962
FARM BUSINESS ANALYSIS
OF 54 FARMS

PEACE RIVER
REGION

BY
T. A. PETERSEN AND L. BAUER
FARM MANAGEMENT EXTENSION SECTION
FARM ECONOMICS BRANCH
ALBERTA DEPARTMENT OF AGRICULTURE





Dear Farm Business Analysis Participant:

This is the Farm Business Analysis Report on your farm for the year of 1962, completed by the Farm Economics Branch staff from accounting information presented by you at workshops in your district this past winter. The report divides the cooperating farmers into groups on the basis of "type of farm", and analysis results are indicated for each type. The farms are classified according to the enterprise which contributes the largest amount to total gross farm returns. If no enterprise accounts for as much as 50% of total farm gross returns, the business has been classed as a diversified farm. The comparison of your farm business with the averages for your farm type will be of the most interest and use to you in locating weak and strong spots in your own operation.

Your District Agriculturists have played an important part in this analysis by way of instruction and supervision in assembly of your basic physical and financial farm data for entry by yourself on the yellow and green analysis sheets. This has also given them a considerable amount of farm business analysis experience, plus a better insight into your individual farm business, which should be of benefit to you when discussing management problems with them.

You will note that this type of project which is now underway in a number of areas in Alberta, is set up to give the farmers, the District Agriculturist, and the Farm Economics Branch all a vested interest in its operation. This is thought to be desirable for successful results. The role that each group is expected to fill is suggested as follows:

(a) Farmer Participant:

1. Completion of an adequate set of farm records.
2. Transferring summary material from his record book over to a comprehensive analysis sheet at a supervised workshop.
3. Completion of a few initial calculations on the analysis sheet.
4. Pays \$10.00 fee to cover a portion of the costs of analysis and report preparation.
5. Receives a written report which he can use as a guide in making adjustments in his farm operation.

(b) District Agriculturist:

1. Provide general guidance and instruction to participants.
2. Check accuracy and completeness of records on analysis sheet.
3. Discuss implications of findings with farmer.
4. Collect and forward the \$10.00 annual fee to the Farm Economics Branch, Edmonton.

(c) Farm Economics Branch:

1. Provide overall technical and mechanical guidance and materials.
2. Check and complete calculations for analysis.
3. Summarize, tabulate, and analyze the records individually and on group basis.
4. Prepare written report and interpretation of results.
5. Print and distribute written report.
6. Discuss findings with interested parties.

We hope you gain a worthwhile amount of economic knowledge about your farm from the explanation of this report to you by either your District Agriculturist or one of the Farm Management specialists. We would like you to remember, however, that the information concerning your farm in this report can be no more accurate or detailed than the information which you gave us on the analysis sheet. In some cases we did run into sizeable discrepancies in information, and we hope that next year both you as members and ourselves as analysts can keep these to a minimum.

Both your District Agriculturists and ourselves express our appreciation in having worked with you and hope you have gained something worthwhile from the farm accounting and business analysis portion of the farm and home management program in which you are participating.

ALF PETERSEN

LEN BAUER

Farm Business Management Section

Farm Economics Branch

Alberta Department of Agriculture

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A. PREFACE

Head work is rapidly replacing much of the muscle power in our modern farming game. Thus, the successful farm manager of today usually finds that his talents as a decision maker and planner in the farm business pay bigger dividends to him than does the manual labor which he might do instead. The farm operator of today must constantly be on the alert, watching for new opportunities, techniques, and ways of improving the efficiency of his operation. As a decision maker, he must cultivate the ability to observe and recognize problems in his business. He must look for alternative solutions to these problems and try to select the best ones. Then, if his planning is to be of any meaning, he must put the selected alternatives into effect and as a manager and entrepreneur he then reaps the rewards, which may be good or bad, depending on the accuracy of his decisions. This constitutes the management process of which decision making is such an important part.

The Farm Economics Branch of the Alberta Department of Agriculture recognizes the changing training needs of farm operators. One of the projects undertaken by the Branch to help meet these needs has been the farm business analysis program. This analysis report contains the results of 54 cooperating farmers from the High Prairie, Grande Prairie, Spirit River and Fairview-Berwyn areas for the year 1962. Group averages are shown for each general type of farm. Each individual farm operator's business analysis results have been returned to him in order that he might see how his operation compares with the group. His own information is, of course, confidential and is revealed to no one but the district agriculturist without his permission. It is hoped that interpretation of this business analysis will give the participating farm operator a better idea of the weak and strong points in his farm operation, as well as valuable guides for making adjustments in order to improve income with the resources he has available.

While the group average figures can be extremely useful to others in assessing the business side of farming, it would be erroneous to assume that these represent average farms for the district. Usually farmers participating in such a program have somewhat larger businesses than is typical for the area. Any general use made of these group averages should, therefore, be appraised with this point in mind.

The results in this report are based on the cooperative efforts of the participating farmers, district agriculturists G.R. McNaughton, G.C. Boulet, M.H. Jaque, N.G. Miller, and E. Dobko, and the Farm Economics Branch. The analysis has been supervised by Len Bauer, Agricultural Economist, with the clerical assistance of Allan Goryniuk and other part time members of the Farm Economics Branch staff.

T.A. PETERSEN,
Acting Director,
Farm Economics Branch.

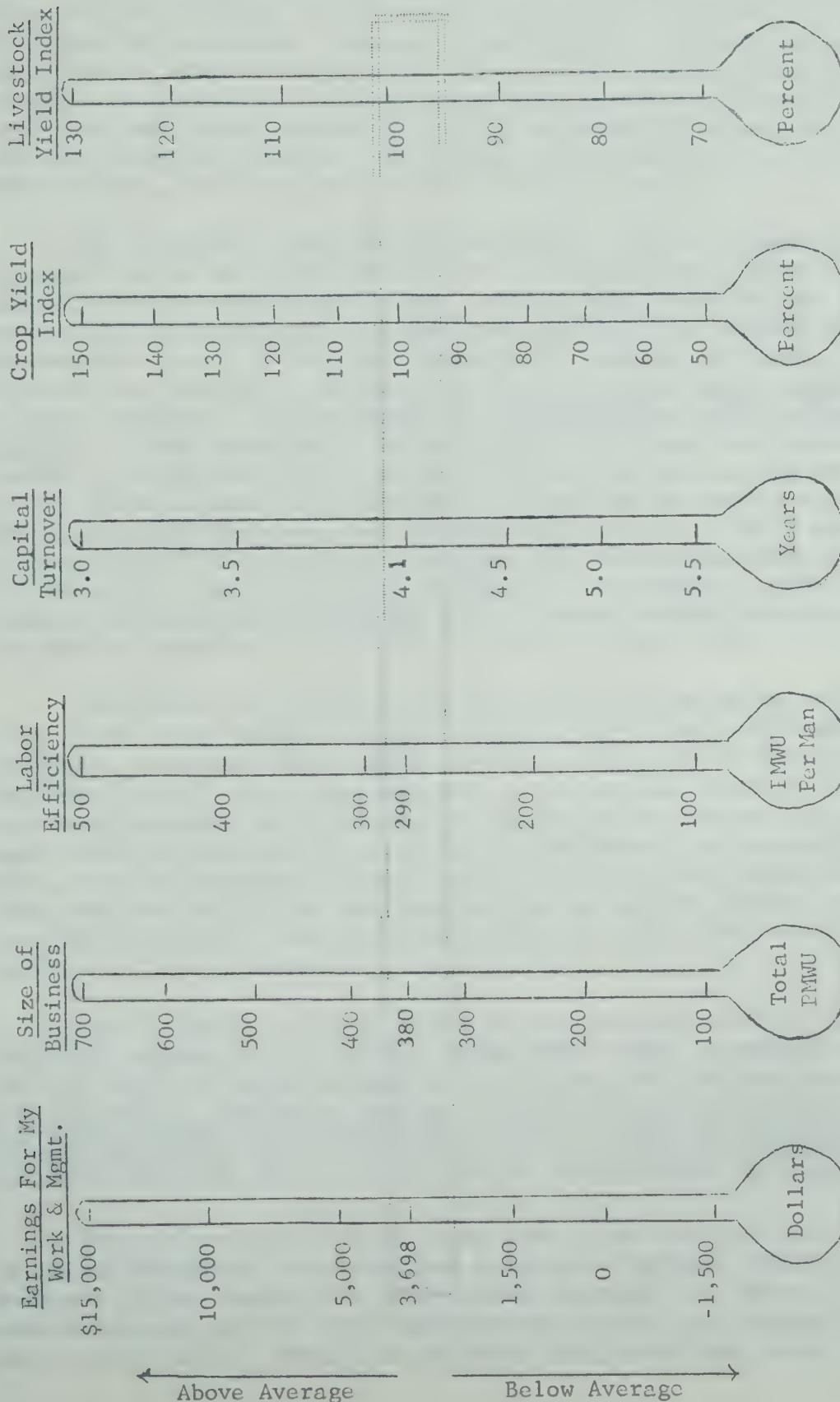
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Graph 1

GRAPHIC SUMMARY OF MY FARM BUSINESS

Page 1



These "thermometer" graphs indicate how your business compares to the average of other participating members in the factors which have been found by research to be the important ones to watch when planning for higher profits, namely (1) size, (2) labor efficiency, (3) capital efficiency, (4) crop yields per acre, (5) livestock yields per animal. There is no adequate overall measure of enterprise combinations as the optimum depends on individual farm resources, so no graph has been shown to indicate this factor for your farm, although pages 4 and 23 of the report deal briefly with this topic. Only the measures considered most adequate for each management factor are shown above. For details in each management factor area, turn to the designated pages for a fuller explanation.

NOTE - The above thermometer scales have been drawn up to show the extreme highs and lows experienced by individual members in this group of farms in the indicated management factors.

What use can be made of a farm business analysis? There would be little reason to go to the trouble of keeping records and analyzing them if there was not some reward beyond the mental gymnastics involved. The only good reason for having a business analysis done on your farm is to gain some insight into the economics of your operation in order that you might have a better idea of the farm income level and how to increase your profit opportunities with the resources you have available. An analysis will give you a hunch as to where your farm business is weak, and where it is strong in relation to district standards. It should be remembered, however, that "district average" is used merely as a benchmark to compare yourself to, and not as an ideal or optimum. Thus, even though your farm size may be average, this does not necessarily mean that you could not make large returns on your investment in an increased size of business. The same might be true for crop yields, livestock yields, or the other management factors, depending upon your particular situation.

The principles involved in investing in various phases of your farm operation are really no different from those you would use if you were investing a sum of money in stocks and bonds. In the former case you are merely investing in various phases of your own business, while in the latter, you are investing in someone else's. If you were investing in stocks and bonds, you would certainly consider the following factors: 1. Percent profit return expected. 2. Degree of risk involved. 3. The length of time your money will be tied up (availability). After assessing a number of available stock and bonds, you would most certainly order them giving priority to the most attractive one first, in terms of the above 3 investment criterea, followed by the second most attractive one, and so on until the money you have available to invest is spent. This requires a considerable amount of paper work on calculating expected costs and returns, (allowing for risk and availability) which is commonly called budgeting. The final decision will be different for different farmers because of their differing capital position, vulnerability, age, training, etc.

How many of us invest in our own farm business using these principles? Very often, even though we might use sound investment criterea outside our farm business, we forget that exactly the same ones apply to investment in the farm business itself. Many farm operators, for example, continue investing in more equipment perhaps, while better breeding stock or improved rations might have been better investments in terms of our investment criterea of percent return, risk, and availability. Others invest in high priced breeding stock or buildings, not realizing that they are passing up greater profit opportunities perhaps in fertilizer, land investment, or some other item, depending on the particular farm situation.

FARM BUSINESS ANALYSIS ATTEMPTS TO LOCATE THE WEAKEST FACTORS IN YOUR BUSINESS, BECAUSE IT IS IN THESE AREAS WHERE ADDED INVESTMENT WILL USUALLY PAY OFF THE BEST PER DOLLAR INVESTED. YOUR FINAL GOAL IN FARM PLANNING SHOULD BE THE APPRAISING (BUDGETING) AND THE PLACING OF YOUR ALTERNATIVES OF INVESTMENT IN YOUR BUSINESS FROM HIGH TO LOW IN TERMS OF OVER-ALL PROFIT FOTENTIAL. THEN, AND ONLY THEN, ARE YOU IN A POSITION TO INVEST WISELY IN YOUR FARM VENTURE.

Thus a farm operator who finds from a business analysis that size appears to be the weakest of the important management factors, should suspect that investment in increasing size of business might pay off better than investment in another direction. His next question should be: what method of increasing size will pay off best. Should he buy more land, rent more land, clear more land

that he already has, buy more livestock, or should he maybe do more custom work to increase the size of his business operation. The only way for him to resolve these questions is to do a bit of "pencil fiddling" (more formally called budgeting), using the best information he can get to estimate costs and returns for each possible alternative (see sample partial budget forms at the end of this report). Then he can invest his money in the particular size increasing endeavour which appears to be most profitable, with the assurance he has made the right move. There is, of course, a limit to the amount he can profitably spend on making his business bigger. He will ultimately reach a point where another management factor such as labour efficiency, livestock or crop yields may become the weakest link, and he will then have to explore by budgeting which is the next best investment move. If livestock yields are suspected to be the next item needing attention, he will have to estimate whether better rations, better breeding stock, or perhaps better sanitation will pay off best. Thus, the good manager will move from one alternative to another when he invests operating capital in his farm operation, on the basis of spending money in what appears to be the highest priority areas first, and then in the lesser and lesser attractive ones until he reaches the stage where it would not pay to invest another dollar in the business (an enviable position which most farmers do not have enough money and other resources to achieve). The above ideas are, of course, briefly and well expressed in the often heard quotations "Spend your money where it will do the most good", or "Attend to the weakest link in the chain first". (See "The Old Oaken Bucket" diagram on Page 5).

The important thing to remember is that farm accounts should be used for farm business analysis. Farm business analysis should be used to locate possible weak spots where the returns per added dollar invested will invariably give a high percent return. Budgeting should then be used to estimate those alternatives which can be taken to alleviate the weakest management factor. The alternatives should then be ranged from high to low in terms of profitability, and the highest one acted on first.

COMMENTS ON FARM BUSINESS ANALYSIS

Size of Business

Less than a total of 300 PMWU on the farm can usually be thought of as being too small for full employment of the operator at present day rates of labor accomplishment. Size can be increased by breaking, renting or buying more land, by raising more livestock, more intensive types of crops, doing custom work, or by a combination of all these. In most areas, a size of farm business effectively employing 2 or 3 men full time appears to use other farm resources most efficiently.

Labor Use

Some operators work long hours and accomplish little work. Others work average hours and accomplish much. Labor efficiency can be increased by carrying bigger enterprises through a more specialized or perhaps a larger farm operation. This justifies the economical purchase of more labor saving equipment. Chore routines, field and building arrangements also play an important part. Job planning to avoid repetition or blank spots is also a major factor. On the other hand, an extremely high labor accomplishment per man may merely be the result of work and management spread too thinly per acre and animal, resulting in low crop and livestock yields. Above average PMWU per man, accompanied by higher than average crop and animal yields, indicate true labor efficiency.

Use of Capital

Capital is being used more effectively when the year's gross farm production is high in relation to total farm investment. A weak relationship may simply be due to weak crop and livestock yields, or due to overinvestment in machinery, land, and buildings for the actual tasks they are performing. This may be a result of the farm as a whole, or the individual enterprises being too small to use equipment economically. Often, however, equipment or buildings are simply too large and elaborate for their intended usage. In certain cases, too much may have been paid for the land in relation to its productive potential.

Crop and Livestock Yields

Low yields may be a result of poor techniques, but in some cases where land quality, or breeding stock is inferior, even the best husbandry practices will not economically increase yields. Poor breeding stock can be replaced relatively easily, but when the limiting factor to crop yields is poor land, there may be no immediate answer outside of selling out, or putting the land to some other use. Inherently poor land can often be improved physically, but whether it will be economically sound for the farmer trying to make a living from it is another question. However, many crop yields could be profitably increased by improved rotations, seed, fertilizer, and cultural practices. Most profitable yields on one type of soil may not necessarily be the best for another. In the case of livestock, many of the poorer yields could be advantageously increased by better rations and general husbandry practices.

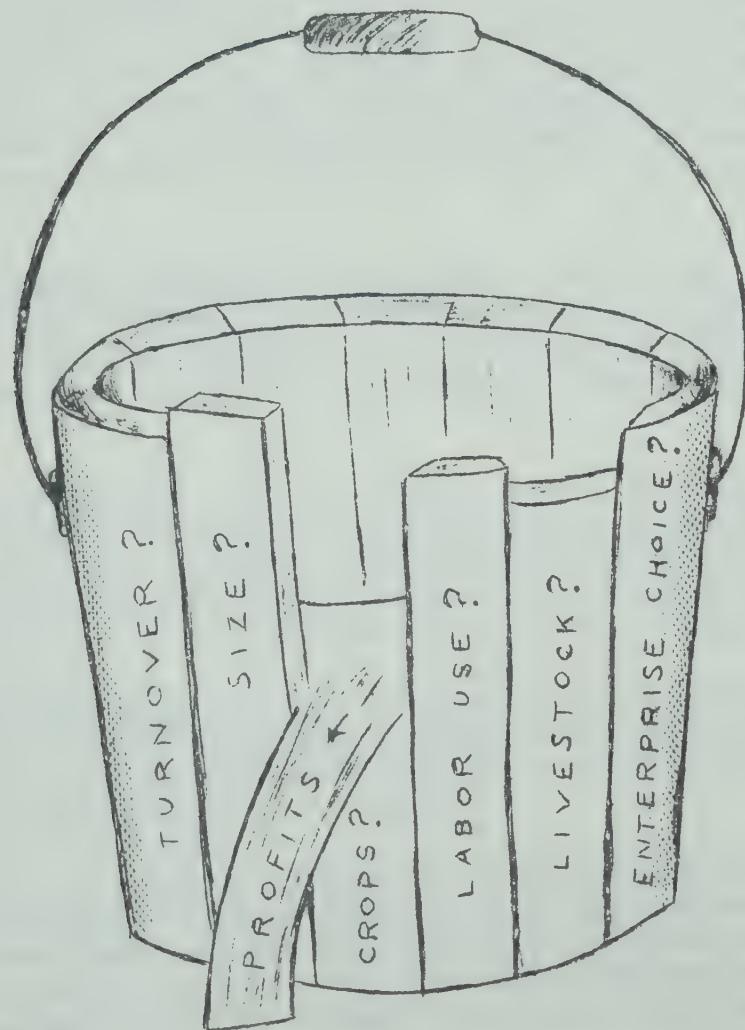
Enterprise Combinations

Lines of production should be picked to best fit the available farm resources. Complimentary enterprises are desirable inasmuch as by-products of some can be used in production of others (dairy cattle and hogs). They should also supplement each other as much as possible, or in other words, they should dovetail together without serious conflict in the use of the farmer's resources. For example, equipment such as loaders, tractors, and trucks which are used for crops in the summertime can often be put to use on additional livestock enterprises in the wintertime or other slack seasons, without adding to total farm overhead costs. Because each farmer has a different combination of equipment, building, and labor resources, the most suitable enterprise combinations will thus differ on each farm (even in the same district) and the production plan must be "custom made" for each business, which will use these available fixed resources to best advantage. Thus, a farmer who finds himself with a large sturdy horse barn for example, or other unused buildings (either due to farm purchase or perhaps faulty past planning), may find that hog, dairy, or broiler production may fit in the best because he already has a substantial start on buildings, the cost of which his business is already bearing. Thus, his housing bill will consist only of building renovation costs. His neighbor, with no substantial outbuildings, may find that his best bet would be to go into hog or beef feeding, enterprises which require low building requirements. The same principles are true in supplementary use of equipment and labor. Idle labor during certain parts of the year continue as costs to the farm business, whether used or not. Thus, enterprises which "dovetail" in using up this surplus labor in slack seasons will be "homefree" in that they do not incur any further labor costs than are already present in farm expenses. Similar examples can be cited for the use of farm equipment during slack seasons as

mentioned previously. The principle to remember is that if the resource is already on the farm, the cost of using it in an extra enterprise will only be the extra variable costs incurred. Fixed costs of interest, depreciation, and insurance are already being borne by the farm business, regardless of the amount of use made of the equipment or building. This is why supplementarity and complementarity between enterprises on a farm are so important. In general, however, introduction of modern machinery and facilities creates the necessity for somewhat more specialization on many farms in order that each enterprise will be large enough to profitably take advantage of special equipment and managerial skills necessary as farm science increases in complexity.

PROFITS ARE NO BIGGER

THAN THE SHORTEST STAVE



The Old Darken Bucket



C. DEFINITIONS AND PROCEDURES USED IN THE FOLLOWING ANALYSIS

1. FARM OPERATOR'S CAPITAL INVESTMENT

(a) Since the values put on farm homes vary a great deal from farm to farm and do not bear a direct relationship to the farm business in many cases, the value of the operator's house is not included in the total farm investment. Houses furnished for hired help, however, are classed as being part of the total farm investment.

(b) Livestock buildings include cattle, hog, sheep, and poultry buildings as well as feeders, silos, corrals, etc.

(c) The values appearing in the following Tables concerned with capital are the end of year inventories. Increases or decreases within the year in the value of real estate, machinery, and breeding livestock due to market value changes are not reflected in this summary as they constitute capital profits or losses and would tend to distort the true picture operating profits for the purpose of this analysis.

2. TOTAL ANNUAL FIXED CHARGES are those which must be borne whether the farm is operated or not. Fixed costs tend to remain constant regardless of the level of output. In this report these are defined as taxes, insurance (except crop and livestock), cash rent (but not rental shares), depreciation, interest on operator's investment, and interest and bank charges on borrowed fixed capital as well as the operator's basic wage allocation (\$2,400.00). They are often referred to as OVERHEAD COSTS.

3. TOTAL ANNUAL VARIABLE CHARGES are those which will not be incurred if the farm is not operating. They vary according to the level of production. They are the total expenses less the overhead costs. They are often referred to as VARIABLE COSTS and consist of such items as fertilizer, fuel, seed, feeder cattle, repairs, etc.

4. TOTAL ANNUAL CHARGES are the sum of annual fixed and annual variable charges and differ from the usual connotation of farm expenses in that they include a charge for the farm inputs of family labour and interest on the capital invested, as well as the operator's basic wage allowance. They consist of the total annual inputs or resources used up in operating the farm for the year.

5. THE OPERATOR'S WAGE VALUE has been appraised at \$2,400.00 for his physical labor, with an allowance of 5% of gross receipts added for the value of his management. The basic wage of \$2,400.00 has been considered an overhead cost in the calculation of this report. (see #2 above).

6. PERQUISITES are the products produced on the farm which could have been sold, but were used in the house. This includes meat, milk, eggs, etc. Some authorities include a rent factor for the farm home (i.e. interest and depreciation). However, since the value of the farm home has been omitted from farm capital investment, the rent that should be charged to the farm family must also be left out.

7. INTEREST ON INVESTMENT is charged at 5% on the operator's farm investment at the end of the year. Rented land, equipment, and livestock are not included here, as the charge to the farm business is included as rental expense. Where the operator paid out interest, it has been shown as a separate portion of the total interest charge against the operator's farm investment.

8. RETURN TO CAPITAL is considered as the dollar difference between net farm income and the operator's assessed wage for work and management (\$2,400.00 plus 5% of gross operating revenue). It represents the amount left for a return to the capital the operator has invested in the farm business after all other input charges have been made. Return to operators capital is also expressed as a percentage return in this report.

9. CAPITAL TURNOVER is the number of years required for the annual gross receipts to equal the value of the total capital investment. It denotes the annual farm productivity (including rental shares) in relation to the amount of total investment in the farm business (including rented capital).

10. CAPITAL INVESTMENT PER MAN EQUIVALENT and per cultivated acre includes the operator's investment plus rented real estate (i.e. total value of all real estate, livestock, equipment and supplies used in the farm operation).

11. AN ANIMAL UNIT is a measure of comparison between various classes of livestock. This can be defined as one mature cow or the equivalent in other livestock based upon the amount of feed converted. The animal units in market livestock have been computed by converting the increase in value to an increase in weight. One animal unit is then considered as being 1,000 pounds of live animal. Conversion factors of \$24.50 per 100 pounds of beef and \$40.00 per hog were used for the year 1962.

12. A PRODUCTIVE MAN WORK UNIT (PMWU) is the amount of productive work done on an average farm by an average man during a 10 hour day. Provincial standards have been used for the average amount of time required to work an acre of various crops and to tend various classes of livestock. Multiplying the appropriate standard by the number of crop acres and animal units on your farm gives a relative picture of the farm size in terms of productive work to be done on the farm as compared to other farms in the group.

13. MAN EQUIVALENTS (ME) are the sum of all the months of labor used in farm work divided by twelve. This gives the number of men working for the full year. Hired, family, and operator's labor are all included.

14. LABOUR EFFICIENCY can be computed by dividing the total productive man work units by the man equivalents. A high figure will show that the labor force is accomplishing a higher than average amount of productive work per man. It means that the labor force is taking care of more animals and acres per man than the standard for the district. On the other hand, however, extremely high labor accomplishment may be the result of spreading labor and management too thinly over the farm, resulting in low animal and crop yields. True labor efficiency is indicated by above average production per acre and per animal, accompanied by a higher than average PMWU per man.

15. CROP VALUATIONS. Appraisal of crop inventory values and actual value of crop sales to the Canadian Wheat Board, is difficult due to the method of issuing initial, interim, and final payments, spread over several accounting years. In this analysis report, crop inventory, and sales values have been appraised at the expected final realized price including all payments. This allocates crop income to the year in which it was actually earned instead of the year in which it was actually received. This portrays a more accurate picture of the true earnings or output for a given year in relation to the expenses incurred.

D. INCOME FACTORS

Table 1

WHAT IS THE CAPITAL INVESTMENT IN THE FARM BUSINESS?

Type of Asset, end year value	Type of Farm	Dairy Farms		Beef Farms		Hog Farms	Diversified Farms	Crop Farms	All Farms	My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle					
Buildings		7,419	5,393				3,681	4,226	4,354	
Land		12,858	23,808				23,420	21,564	21,684	
TOTAL REAL ESTATE		20,277	28,481				27,101	25,790	26,038	
Machinery & Equipment		6,913	9,836				11,382	14,789	13,107	
Livestock		6,635	11,819				7,062	2,946	4,880	
Grain & Roughage		2,849	4,361				5,266	8,458	7,018	
Supplies		358	25				32	75	76	
TOTAL OWNED CAPITAL		37,032	54,521				50,843	52,058	51,119	
Rented Resources		3,589	3,425				1,893	2,909	2,724	
TOTAL CAPITAL INVESTMENT		40,621	57,946				52,736	54,967	53,843	
High Capital Investment		56,034	99,749				87,298	102,656	102,656	XXX
Low Capital Investment		26,273	21,555				18,813	16,023	16,023	XXX
Number of Farms		3	4				14	33	54	XXX

"Type of Farm" has been determined on the basis of percentage gross returns from each enterprise. Thus, if a specific enterprise accounted for more than 50% of the total farm gross returns, the unit was designated as that type of farm. For example, if hogs accounted for 65% of total farm gross returns, the operation was classed as a hog farm. Farms with no one enterprise accounting for as much as 50% of total farm gross returns were classed as diversified farms.

Table 2

WHERE DID THE MONEY COME FROM?

Item	Farm Type	Dairy Farms			Beef Farms			Crop Farms			All Farms		My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle	Hog Farms	Diversified Farms	Crop Farms	All Farms				
Dairy Cattle Sales		4,204	-				43	214	378				
Beef Cattle Sales		-	5,777				2,965	1,707	2,240				
Hog Sales		108	844				3,664	1,015	639				
Sheep Sales		-	115				574	16	167				
Poultry Sales		173	-				60	7	30				
Cream & Milk Sales		6,145	260				62	106	445				
Egg Sales		39	-				145	17	50				
Wool Sales		-	31				-	1	3				
Crop Sales 1. Operators Share		2,174	3,450				3,637	9,435	7,088				
2. Landlord Share		221	-				166	478	348				
Labor & Custom Work Income		240	58				336	308	293				
Other Farm Income		373	302				318	378	357				
Perquisites		438	404				289	172	238				
FARM OPERATING RECEIPTS		14,170	11,240				12,262	13,855	13,275				
Plus 1. Increase Crop & Supplies		-	440				1,008	1,293	1,159				
2. Inv. inc. Livestock		-	1,525				589	-	-				
Less 1. Decrease Crop & Supplies		60	-				-	-	-				
2. Inv. dec. Livestock		1,335	-				-	440	78				
ADJUSTED GROSS FARM RECEIPTS		12,775	13,205				14,155	14,708	14,356				
Less 1. Livestock bought		2,047	1,398				1,939	586	1,079				
2. Grain & Hay Bought		518	291				373	110	215				
GROSS OPERATING REVENUE		10,210	11,516				11,847	14,012	13,062				

The "cash method" for reporting farm income tax, although suitable for this purpose, can be quite misleading when trying to measure farm business progress for a specific year. In some cases, the year's cash sales may be larger than the actual farm production for the year due to an unusually large amount of grain or livestock being sold, part of which may have been produced in previous years. Conversely, annual cash sales may be less than the year's actual farm production because grain or livestock raised during the year remain unsold at the end of the accounting period. Therefore, no farm operator can get an accurate picture of his financial progress without measuring these inventory changes from year to year.

To further refine his calculations he must also take into consideration the value of livestock purchased and grain and hay bought and fed to livestock. The resulting figure gives the value of the year's farm production for which his farm business was actually responsible.

Item	Farm Type	Dairy Farms		Beef Farms		Crop Farms		All Farms		My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle	Hog Farms	Diversified Farms	Crop Farms	All Farms	
Equip. & Operating Expense		1,427	1,475					1,604	1,574	1,567
Annual Bldg. & Fence maint. cost		103	42					177	170	159
Crop Insurance & Fees		26	-					18	44	33
Crop Spray		45	66					84	108	95
Fertilizer		248	173					421	499	441
Other Direct Crop Expense		454	307					213	387	340
DAIRY CATTLE 1. Mill feed & min.		59	-					2	2	5
2. Other dir. exp.		340	-					3	12	27
BEEF COW CALF 1. Mill feed & min.		-	126					42	51	52
2. Other dir. exp.		-	174					76	56	67
BEEF FEEDER 1. Mill feed & min.		-	-					28	5	10
2. Other dir. exp.		-	-					25	29	24
HOGS 1. Mill feed & min.		-	2					359	62	131
2. Other dir. exp.		-	57					38	27	30
POULTRY 1. Mill feed & min.		16	-					34	8	14
2. Other dir. exp.		30	-					8	1	4
OTHER LIVESTOCK 1. Mill fd & min.		-	-					-	-	-
2. Other dir. exp.		-	-					-	-	-
Telephone & Power		274	155					150	141	152
Farm Rental Shares 1. Crops		221	-					166	478	348
2. Livestock		-	-					-	-	-
Farm Cash Rent		-	315					19	262	188
Land & Water Taxes		84	366					463	397	394
Bldg. & Equip. Insurance		99	60					63	78	74
Hired Labor		549	57					314	396	359
CASH OPERATING EXPENSE		3,975	3,375					4,306	4,789	4,517
Plus 1. Depreciation		1,273	1,567					1,783	2,196	1,992
2. This yr opr exp. not pd.		356	-					68	24	52
3. Family Labor		569	295					400	172	263
Less 1. Old opr exp pd this yr.		33	-					37	7	16
TOTAL OPERATING EXPENSES		6,140	5,237					6,520	7,174	6,808

The above table gives a detailed breakdown of the average cash operating expenses incurred. Livestock, grain and hay purchased have already been subtracted as expenses on the Gross Operating Revenue page in order to obtain the farm's actual production for the year. This allows for refinement of the management factor analysis on later pages. Similarly, any interest actually paid out has been deleted and shown later as a separate item under interest charge to farm investment.

Table 4

WHAT DID YOU AS A FARM OPERATOR OBTAIN FOR YOUR YEAR'S WORK AND MANAGEMENT?

Item	Farm Type	Dairy Farms	Beef Farms	Hog Farms	Crop Farms	All Farms	My Farm Type
	Cream & Condensery	Fluid Mill	Cow-Calf	Feeder Cattle	Diversified Farms		- - -
Gross Operating Revenue		10,210	11,516		11,847	14,012	13,062
Total Operating Expenses		6,140	5,237		6,520	7,174	6,808
NET FARM INCOME		4,070	6,279		5,327	6,838	6,254
Less Interest Laid Out		724	69		513	339	386
Less Interest to Operator		1,127	2,657		2,029	2,264	2,170
OPERATORS LABOR EARNINGS		2,219	3,553		2,785	4,235	3,698
High Labor Earnings		3,212	9,762		6,396	16,456	16,456
Low Labor Earnings		635	58		-1,164	-1,454	1,454

High Labor Earnings	Low Labor Earnings

"Net Farm Income" is the difference between "Gross operating Revenue" (the year's farm production) and the cash farm operating expenses plus depreciation and unpaid family labor. It is calculated much like "net profit" on the income tax form except inventory increases or decreases of livestock and grain are considered.

"Operator's Labor Earnings" is the return the farm operator receives for his labor and management used in operating the farm. It is the amount left after paying all farm expenses, including a charge for depreciation and unpaid family labor, and for interest on the operator's capital invested on the business. Interest on operators farm assets has been subdivided into the amount which the farmer actually paid out on farm debts during the year, as well as the amount he should be entitled to pocket as a 5% interest return from his equity in his farm assets.

"Operator's Labor Earnings" is one of the better measures of profits for the farm. It represents the amount that the farm business was able to pay the operator for his work and management after considering all other costs.

Using Graph 2a you can compare your labor earnings with the average of all farms and using Graph 2b, with the average of your particular specialty. It should be remembered that labor earnings give you an appraisal of what your work and management was worth on the farm. If you could make more than this in another occupation, it indicates your farm is not earning as well as other alternatives, and consequently you might be better off financially elsewhere, or in re-organizing your farm program in such a way that it will at least pay as well as your other opportunities.

Table 5

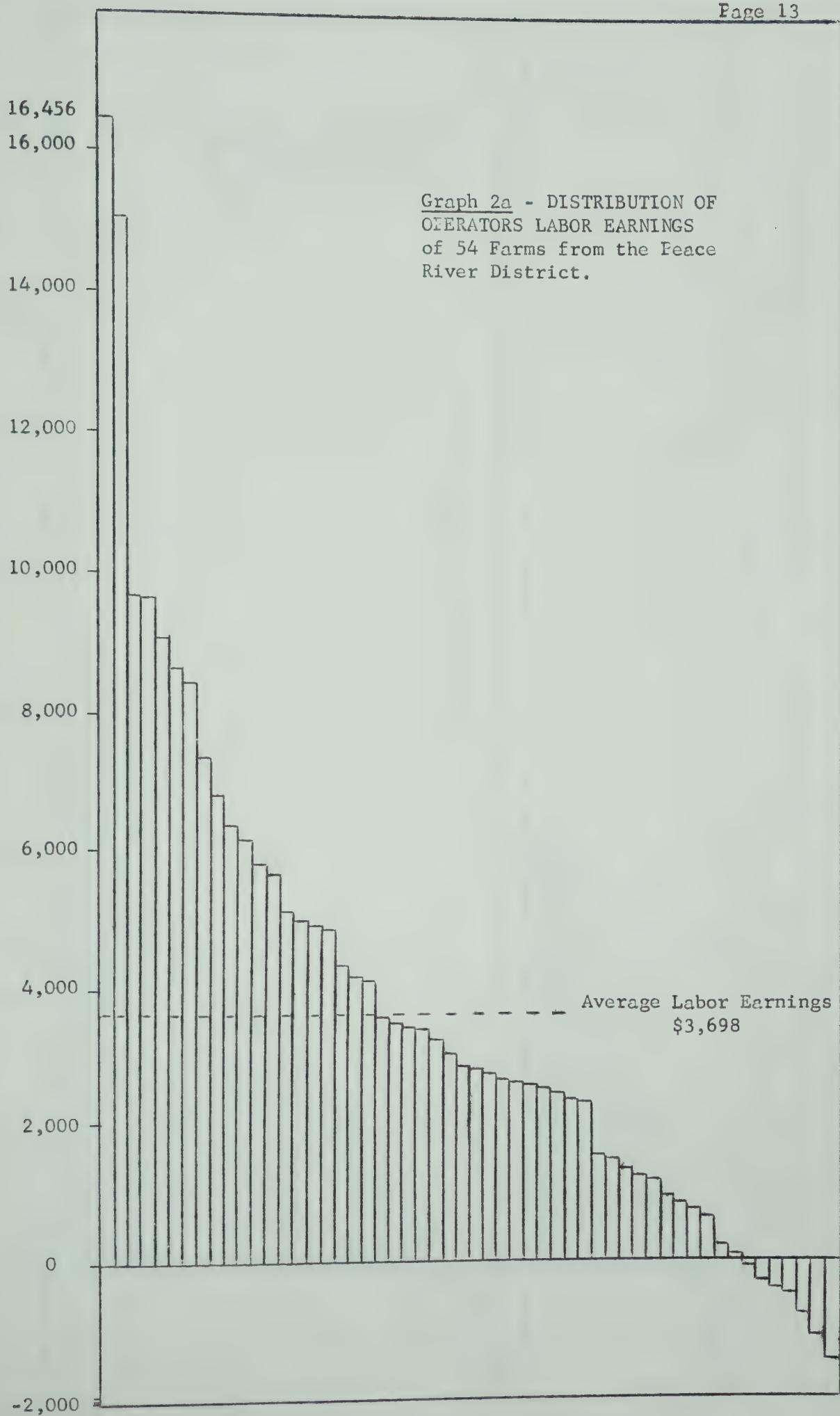
PERCENT RETURN TO INVESTMENT

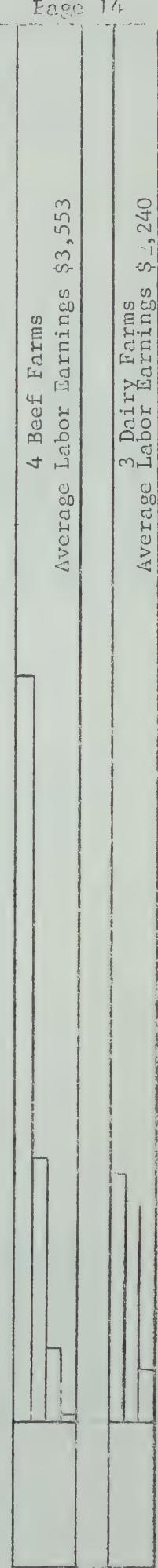
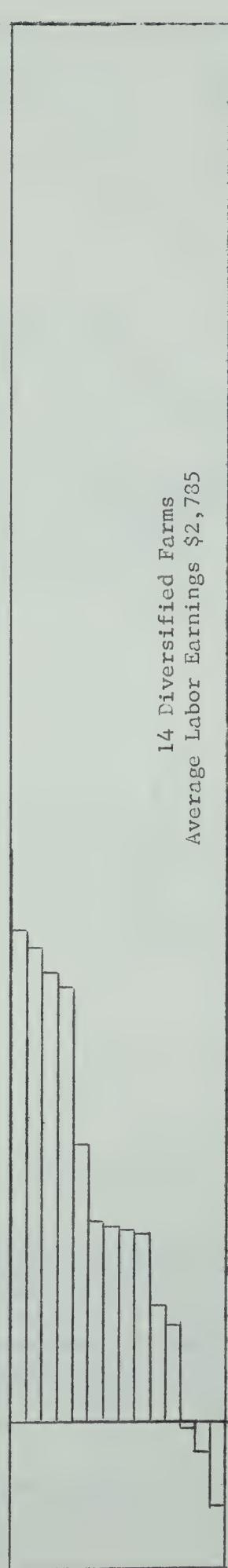
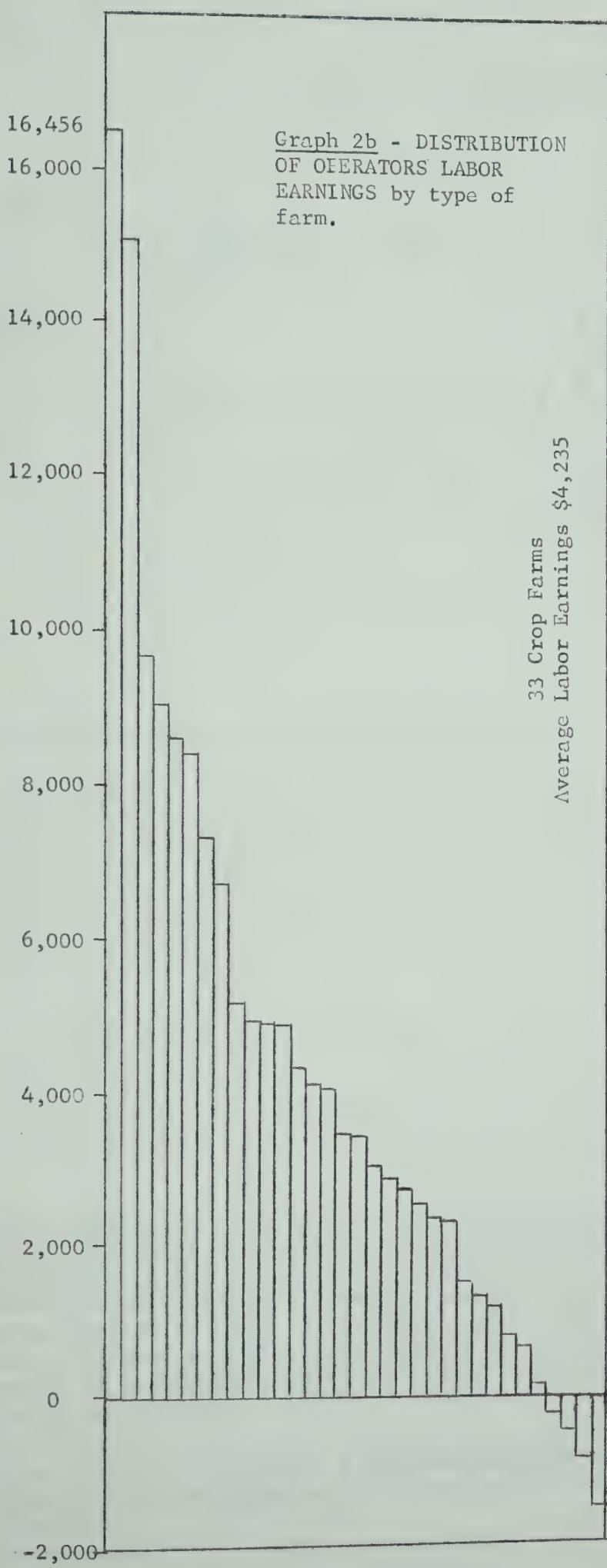
Item	Farm Type	Dairy Farms		Beef Farms		Crop Farms		All Farms		My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle	Hog Farms	Diversified Farms	Crop Farms	All Farms	
Net Farm Income		4,070	6,279				5,327	6,838	6,254	
Less Appraised Wage		2,910	3,576				3,072	3,160	3,133	
Return to Investment		1,160	2,703				2,255	3,738	3,121	
Operator's Farm Inventory		37,032	54,521				50,843	52,058	51,119	
PERCENT RETURN		3.1%	5.0%				4.4%	7.2%	6.1%	
High Percent Return			5.7	9.3				11.8	24.2	24.2
Low Percent Return			.07	-7.0				-5.7	-6.2	-6.2

High Percent Return	5.7	9.3			11.8	24.2	24.2
Low Percent Return	.07	-7.0			-5.7	-6.2	-6.2

Percentage return on the operator's farm investment is merely another method of indicating profitability of the farm. In calculating return to capital an alternative opportunity wage has been appraised for the operator's work and management and the resulting profit residual is designated as investment return instead of assuming a 5% investment return before arriving at "Operator's Labor Earnings" as on the previous page. Both "Operator's Labor Earnings" and "Percentage Return on Investment" tell the same story concerning the financial success of the farm operation. However, some prefer to have an assessment of their farm operation in terms of what their farm investment is earning, rather than the returns to their labor and management.

OPERATORS LABOR EARNINGS \$



OPERATORS LABOR EARNINGS \$



Main Reasons for Income Variations Between Farms

There are many factors which affect the ultimate earnings of a farm. Some are very important, while others are much less significant. Some factors such as weather and markets are often beyond the control of an individual farmer while others can be regulated by him through sound business management to substantially increase farm profits. Usually most of the difference in incomes between farms in the same locality (and thus facing the same price conditions) can be traced to differences in:

1. Size of the farm business
2. Productive work done per man
3. Volume of production in relation to capital investment
4. Crop yields per acre
5. Livestock yields per animal
6. The lines of crop and livestock production on the farm (Enterprise combinations).

A definite weakness in any one, or several of the above factors usually gives a farm a low earning power which could be increased to best advantage by giving most attention to the weakest factors first. These factors are often difficult to portray objectively, so a number of measures have been shown under each management factor category to help you in an overall assessment of your farm in each. The most reliable single measure in each category is indicated at the bottom of each chart used in the "thermometer chart" on Page 1 to show your relative position to the group average.

The following Tables give a detailed analysis of the factors previously mentioned as being so important in a successful farm operation.

Table 61. SIZE OF BUSINESS

Item	Farm Type	Dairy Farms			Beef Farms		Hog Farms		Diversified Farms		Crop Farms		All Farms		My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle										
Acres Owned		525	640						556		600		588		
Acres Rented		185	56						91		97		98		
TOTAL ACRES		710	696						647		697		686		
Cultivated Acres		411	384						444		577		520		
Native Pasture & Waste		289	302						193		110		156		
TOTAL FARM INVESTMENT		40,621	57,946						52,736		54,967		53,843		
Rented Investment		3,589	3,425						1,893		2,909		2,724		
OPERATORS INVESTMENT		37,032	54,521						50,843		52,058		51,119		
Total PMW		506	351						408		359		380		
Man Equivalents		1.50	1.43						1.35		1.26		1.31		
Total Animal Units		30.1	62.1						45.4		18.4		29.1		
GROSS OPERATING REVENUE		10,210	11,516						11,847		14,012		13,062		

Adequate size of operation is absolutely necessary for a successful farm business. "Productive Work Units" is the best single measure of size for comparison purposes between farms having different proportions and amounts of livestock and crops. It represents the number of 10 hour days of work entailed in the handling of the crop and livestock programs on the farm at average rates of accomplishment. The actual number of days required by the particular farm labor force may be more or less, depending upon the efficiency of the layout with respect to labor use.

When these "standard productive man work units" requirements are applied to the analysis of all the farms, relative differences in size (as measured by the number of animals and acres cared for) can be established. Thus, if one farm has twice as many F.M.W.U.'s as another, it can be said that the size of operation is twice as large. This is a much superior measure of size to that of acres alone, especially on mixed farms where a farm small in acres can still be a very large business because of a large livestock enterprise, or intensive crop. In a similar vein, capital investment in itself is not a good measure of business size, because much of this investment may be in fixed assets due to excessive expenditure on buildings and equipment, and thus does not express adequately the size of operation in terms of production actually being attempted on the farm.

Table 7

2. LABOR & EQUIPMENT ANALYSIS

Item	Farm Type	Dairy Farms		Beef Farms		Hog Farms	Diversified Farms	Crop Farms	All Farms	My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle					
Months of Hired Labor		2.1	0.2				1.6	2.1	1.8	
Months of Family Labor		3.9	2.0				2.2	1.0	1.5	
Months of Operator Labor		12.0	15.0				12.4	12.0	12.4	
Total Months of Labor		18.0	17.2				16.2	15.1	15.7	
Man equivalent per farm		1.50	1.43				1.35	1.26	1.31	
PMWU per man equivalent		327	245				302	285	290	
Total Value of Labor (incl. op's.)		3,518	3,352				3,194	2,968	3,102	
Labor as % of total farm charges		27.2	26.5				23.1	23.1	23.3	
Operators Labor Earnings		2,219	3,553				2,785	4,235	2,698	
Equip. Investment per man equiv.		4,608	6,878				8,431	11,736	9,638	
Equip. Investment per cult. acre		1.7	26				26	25	25	
Equipment overhead		1,221	1,320				2,170	2,749	2,447	
Equip. overhead per cult. acre		3.7	4.7				4.89	4.74	4.71	
Annual Equip. operating cost		1,427	1,475				1,604	1,574	1,567	
Annual Equip. oper. per cult. acre		3.47	3.84				3.61	2.71	3.01	
Total Annual Equipment Cost		2,658	3,295				3,774	4,223	4,014	
Total Annual Equip. Cost/cult. acre		6.47	8.58				8.50	7.28	7.72	
Total Annual Equip./man equiv.		1,772	2,304				2,795	3,351	2,951	

For the same reason that total F.M.W.U. is the best measure of size, F.M.W.U. per man is the most revealing measure of labor productivity or efficiency. It is desirable that every worker on a farm accomplish as large an amount of productive work as is reasonably possible. This does not necessarily mean working long hours, but instead, having enterprise sizes, work routines, and mechanization planned so that each worker can care for a larger number of acres and animals in the time that he spends working. Greater output per man is being accomplished by progressively more mechanization, as labor becomes higher priced and more difficult to obtain. However, there is always the danger of becoming overcapitalized due to the purchase of too much expensive machinery without a corresponding increase in output. Often too much money is spent on crop equipment while livestock labor saving equipment is neglected with the result that overall labor efficiency is not increased to any great extent. Jumping off the \$10,000 combine to feed the 100 steers with two, five-gallon oil pails is an indication of a poor balance of mechanization.

Table 7 shows the number of man equivalents on each type of farm for the year (total months of labor divided by 12). Certain types of farms use a higher proportion of labor than others as can be seen from the Table. Labor efficiency also varies with type of farm as well as degree of mechanization. An increase in equipment investment per man usually tends to bring about an increase in accomplishment per man employed. As the cost of labor increases relative to the cost of capital and as machines improve, the trend of substituting capital for labor will continue. The farmer must do some pencil figuring (budgeting) to estimate the least cost combination of labor versus equipment for his farm.

3. CAPITAL ANALYSIS

Item	Farm Type	Dairy Farms		Beef Farms		Hog Farms	Diversified Farms	Crop Farms	All Farms	My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle					
Op's. Total Assets (Farm & Pers.)		45,215	61,937			59,096	65,449	62,452		
Op's. Total Liab. (Farm & Pers.)		13,329	2,117			13,658	9,483	10,242		
Op's. Net Worth (end of year)		31,886	59,820			45,438	55,966	52,210		
Change in Net Worth during year		-725	3,762			2,808	3,820	3,301		
Net Cap. Ratio (Assets : Liab.)		3.4:1	29.3:1			4.3:1	6.9:1	6.1:1		
Operators Farm Capital		37,032	54,521			50,843	52,058	51,119		
% Return to Op's. Farm Capital		3.1	5.0			4.4	7.2	6.1		
Total Farm Cap. (including renter)		40,621	57,946			52,736	54,967	53,843		
Yrs. to turn over Total Farm cap.		4.0	5.0			4.4	3.9	4.1		
Total Farm Cap. per cult. acre		99	151			119	95	104		
Build. investment per cult. acre		18	14			8	7	3		
Equip. investment per cult. acre		17	26			26	26	25		
Total Farm Charges		12,956	12,652			13,854	12,873	13,058		
Overhead Farm Charges		5,707	7,434			7,270	7,936	7,604		
Variable Farm Charges		7,249	5,218			6,584	4,937	5,454		
Fixed as % of Total Farm Charges		44%	59%			52%	62%	58%		
Variable as % of Total Farm Chgs.		56%	41%			48%	38%	42%		
\$/ spent to return \$100 gross income		60	45			55	51	52		
Building investment/animal unit		246	87			81	230	150		

"Operators Net Worth" is a very important factor. This is what credit agencies look at when assessing the farm operator who is asking for credit. It also tells the operator whether he and his family are moving ahead from year to year, or whether they are going backwards, as indicated by a decreasing net worth. "Net Capital Ratio" indicates the relationship between assets and debts. A ratio of less than 1 indicates insolvency. Generally a ratio of less than 2, especially for older farmers, should be considered a danger signal.

The higher a year's production is in relation to the present value of capital investment in the farm business, the better chances are for obtaining high income. Turnover, or years for gross operating revenue to equal total farm investment expenses this relationship. A desirable relationship is indicated by a lower than average number of years required, while a higher number of years indicates a weakness in use of capital. In other words, for the amount of capital invested, the production is below district accomplishment. Low rates of capital turnover may be due to overinvestment in buildings and equipment, or to producing acres and animals or a combination of all of these.

"Total Farm Charges" indicates the total value of inputs that were used in the business during the year including depreciation, interest on investment, and operators labor. Farms which have a high percentage of variable farm charges usually make higher earnings than those with a high percentage of overhead costs. (See page 6 for explanation of overhead and fixed costs). Money spent on overhead expense items will return nothing if variable expense items are not forthcoming to operate the overhead capital. Too often capital becomes tied up in excessive overhead with little left for fertilizer, better feeds, more and better livestock, etc.

Table 9

4. CROP PROGRAM & YIELD ANALYSIS

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Land Use	Item	Average of all Farms			My Farm		
		Acres	Yield Per Acre	Total Value	Acres	Yield Per Acre	Total Value
Spring Wheat		85	26.0 bus.	3,265			
Winter Wheat		-	-	-			
Durum Wheat		-	-	-			
Oats		55	44.3 bus.	1,475			
Barley		97	35.0 bus.	3,272			
Mixed Grain		2	24.5 bus.	44			
Flax		21	10.6 bus.	661			
Rye		-	-	-			
Sunflowers		-	-	-			
Rapeseed		3	14.6 lbs.	92			
Forage Seeds		54	206 lbs.	1,213			
Greenfeed		5	2.8 tons	86			
Silage		3	3.7 tons	67			
Tame Hay		34	1.6 tons	574			
Tame Pasture		27		174			
Straw				140			
Fallow		122					
TOTAL CROP ACRES & VALUE OF CROP		508		11,063			
New Breaking		12					
TOTAL CULTIVATED ACRES		520					
Native Pasture & Waste		156					
Farmstead		10					
TOTAL FARM LAND		686					
TOTAL VALUE OF CROP PER CROP ACRE				21.77			
Crop Yield Index				100%			
Crop Intensity Index				100%			
% of Cult. Land in Grain & Oilseed		47					
% of Cult. Land in Forage		30					
% of Cult. Land in Fallow		23					
% of Cult. Land in Other		-					

Crop Yields: To get a true picture of crop productivity, all of the acres in crop must be considered, not just the special field that got all the manure and fertilizer. Several bushels per acre less than average can mean several thousand dollars difference in farm profits. Often weather is responsible for yield variations between farms but frequently different rotations and cropping practices can also make large differences. Value of total crop on your farm as compared to what it would have been, had you obtained average yields for the crops you grew, is a good productivity measure. CROP YIELD INDEX expresses this as a percentage of 100%. On your farm total crop value was appraised at \$ _____. If you had had average crop yields the value would have been \$ _____.

Crop Intensity: High crop yields in themselves are not always enough. Growing less intensive (lower value per acre crops) than those best suited for the district can mean substantial loss of potential income even though yields may be quite high. CROP INTENSITY INDEX expresses the overall intensity level of your land use. It is calculated by comparing the value of your crops per crop acre at district average yields to the district average gross value per crop acre. On your farm, gross value of crops per crop acre at district average yields would have been \$ _____. Had you followed a crop program similar to the district average, your crop value per crop acre would have been \$ _____. This can also be expressed as a percentage of average.

Table 10

CROP ENTERPRISE COST ANALYSIS 1/

Item	Farm Type	Dairy Farms		Beef Farms		Hog Farms	Diversified Farms	Crop Farms	All Farms	My Farm Type
		Cream & Condensery	Fluid Milk	Cow-Calf	Feeder Cattle					
GRCS\$ VALUE OF CROP PRODUCED		5,437	7,031			8,271		13,242	11,063	
Less Share Rent		221	-			166		478	348	
Less Direct Cash Costs & Own Seed		910	1,202			1,285		1,981	1,684	
Less Joint Variable Costs		1,317	1,347			1,347		1,585	1,492	
NET ABOVE VARIABLE COSTS		2,989	4,482			5,473		9,193	7,539	
Less Value of Labor Used		1,043	1,675			1,525		2,076	1,847	
NET TO OVERTIME, RISK & MGMT.		1,946	2,808			3,948		7,122	5,692	
Less Joint Overhead Costs		2,239	3,522			3,738		4,649	4,197	
NET TO RISK & MGMT.		-293	-715			210		2,473	1,495	
Plus Labor Charge		1,043	1,675			1,525		2,076	1,847	
CROP ENTERPRISE LABOR EARNINGS		750	960			1,735		4,549	3,342	
TOTAL CROP COSTS		5,730	7,746			8,061		10,769	9,568	
Crop Overhead as % of Total Cost		39%	46%			46%		43%	44%	
Crop Labor as % of Total Cost		18%	22%			19%		19%	19%	
Other Crop Costs as % of Total Cost		43%	32%			35%		38%	37%	
Gross Value of Crop/Crop Acre 2/		16.53	18.70			18.88		23.27	21.78	
Variable Costs per Crop Acre		7.44	6.78			6.39		7.11	6.94	
Labor Costs per Crop Acre		3.17	4.45			3.48		3.65	3.64	
Overhead Costs per Crop Acre		6.81	9.37			8.53		8.17	8.26	
TOTAL CROP COSTS PER CROP ACRE		17.42	20.60			18.40		18.93	18.83	
RETURNS TO CROP LABOR PER CROP ACRE		2.28	2.55			3.96		7.99	6.58	
Number of Crop Acres		329	376			438		569	508	
Months of Labor on Crops		5	3			7.7		10.6	9.4	
Days Crop Labor Used/100 Crop Acres		39.5	55.3			45.7		48.5	48.0	
Equip. Invest. per Crop Acre		21	26			26		26	26	

1/ Expenses to the crop enterprise are considered all those to the point where the grain is in the bin and hay in the stack.

2/ Crop acres include fallow and tame pasture but not new breaking. Variable crop costs are considered those which would not be incurred if the crop is not produced. They are often called "out of pocket costs". Crop labor is frequently a variable cost to crops, but in many instances it is family and operator labor and cannot be dispensed with if not needed. It is then classed as a fixed cost. The above Table itemizes labor costs separately for this reason. (See page 6 for definitions of fixed and variable costs).

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5. LIVESTOCK PRODUCTION ANALYSIS

Page 21

(a) Livestock Yields

Efficiency of livestock and poultry is not easily measured without detailed records. Complete analysis requires such important details as total pounds of milk produced, pigs raised per sow, rate of gain, feeding practices, time of year marketed, etc. All these items have an important bearing on measuring the efficiency of livestock production and without these it is difficult to get an accurate measure of this factor. This analysis has not yet considered each enterprise in this amount of detail.

The "Livestock Index" is probably one of the better general methods of measuring livestock productivity on farms where several types of livestock are kept. It is difficult to compare a farm operators livestock with the district average except under some common denominator such as 'animal unit'. The livestock index of an individual farm is the gross returns per animal unit expressed as a percentage with the district average at 100%. An 'animal unit' is a common denominator between animals based on feed conversion and body weight. Standard animal unit Tables have been established which are used universally in agriculture. It is assumed that one mature cow represents an animal unit. The comparative feed consumption and body weight of other age groups or classes of animals determines the proportion of an animal unit which they represent -- thus 1 1/2 mature heifers; 3 calves, 100 hens, 7 sheep, or 35 turkeys represent an animal unit. In the case of feeder hogs and steers, 1,000 pounds of animal produced is considered an animal unit. This represents approximately five market hogs produced, or three steers fattened.

Your gross livestock returns (dollars worth of livestock produced) came to \$ _____ in 1962. If your livestock yields per animal had been average for the district and for your number and kind of livestock, your gross livestock returns would have been \$ _____. The livestock index expresses this on a percentage basis. Your Livestock Index was ____%.

(b) Livestock Costs and Returns

Livestock enterprise costs and returns have been calculated in a similar manner to that for crops. The major cost of raising livestock is feed. The feed bill accounts for as much as 80% of total costs on a feeder cattle operation and usually over 60% on dairy and hog farms. The feeding of low cost rations, while maintaining high production, is therefore necessary if the livestock enterprise is to be run successfully. It should be remembered that various feeds will substitute for each other to produce the same product. For example, if grain is high, it will likely be economical to substitute hay for grain in the case of forage consuming animals. Similarly, if barley is very high priced it may pay to substitute wheat or oats in its place. In addition to the PRINCIPLE OF SUBSTITUTION in feeds, the livestock producer faces a problem of how much to feed. The PRINCIPLE OF DIMINISHING RETURNS enters the picture here. Heavy feeders for example, convert feed less and less efficiently as their weight increases. Similar conditions exist in the case of milk from dairy cattle, eggs from poultry, etc. The producer must aim for the point where the last pound of feed fed to the animal will just pay for itself. This is where profits from feed will be the largest per animal. Labor also accounts for a big share of the expense of producing livestock. Labor saving devices in a livestock enterprise often release the operators time to be used more profitably in other phases of farm production, thus reducing total cost to the livestock enterprise and increasing production elsewhere (Labor - Equipment substitution). Labor that is replaced by equipment must perform at a higher rate of output elsewhere or increase satisfaction in extra leisure time sufficiently to justify the change.

The following pages show costs and returns for each livestock enterprise by "Type of Farm".

Table 11

PEACE RIVER DAIRY FARMS
LIVESTOCK COST AND RETURNS ANALYSIS

Item	Enterprise	Dairy	Cow-Calf	Feeder Cattle	Hogs	Poultry	Other	Total Livestock
Gross Returns		7,408	-	-	30	336	-	7,774
Less Total Value of Feed Fed		3,681	-	-	20	115	-	3,816
NET ABOVE FEED		3,727	-	-	10	221	-	3,958
Less Value of Labor		1,885	-	-	35	315	-	2,235
NET ABOVE LABOR & FEED		1,842	-	-	-25	-94	-	1,723
Less Direct Cash Cost & Share Rent		340	-	-	-	30	-	370
Less Joint Variable Cost		473	-	-	12	2	-	487
NET TO OVERHEAD, RISK & MGMT.		1,029	-	-	-37	-126	-	866
Less Joint Overhead Cost		982	-	-	75	10	-	1,067
NET TO RISK & MGMT.		47	-	-	-112	-136	-	-201
Plus Labor		1,885	-	-	35	315	-	2,235
ENTERPRISE LABOR EARNINGS		1,932	-	-	-77	179	-	2,034
TOTAL ENTERPRISE COSTS		7,361	-	-	142	472	-	7,975
Feed as % of Total Cost		50	-	-	14	24	-	48
Labor as % of Total Cost		26	-	-	25	67	-	28
Other Costs as % of Total Cost		24	-	-	61	9	-	24
No. Animal Units		29.7	-	-	0.1	0.3	-	30.1
Gross Return Per Animal Unit (\$)		249	-	-	300	1,120	-	258
Gross Return Per \$100 Feed (\$)		201	-	-	150	292	-	204
Months Labor Used on Enterprises		10	-	-	0.2	1.5	-	11.7

Table 11-A

PEACE RIVER BEEF FARMS
LIVESTOCK COST AND RETURNS ANALYSIS

Item	Enterprise	Dairy	Cow-Calf	Feeder Cattle	Hogs	Poultry	Other	Total Livestock
Gross Returns		-	6,655	-	746	16	140	7,557
Less Total Value of Feed Fed		-	2,764	-	388	-	18	3,170
NET ABOVE FEED		-	3,891	-	358	16	122	4,387
Less Value of Labor		-	1,241	-	194	25	47	1,507
NET ABOVE LABOR & FEED		-	2,650	-	164	-9	75	2,880
Less Direct Cash Cost & Share Rent		-	222	-	57	-	-	279
Less Joint Variable Cost		-	280	-	41	-	4	325
NET TO OVERHEAD, RISK & MGMT.		-	2,148	-	66	-9	71	2,276
Less Joint Overhead Cost		-	1,114	-	74	-	9	1,197
NET TO RISK & MGMT.		-	1,034	-	-8	-9	62	1,079
Plus Labor		-	1,241	-	194	25	47	1,507
ENTERPRISE LABOR EARNINGS		-	2,275	-	186	16	109	2,586
TOTAL ENTERPRISE COSTS		-	5,621	-	754	25	78	6,478
Feed as % of Total Cost		-	49	-	51	-	23	49
Labor as % of Total Cost		-	22	-	26	100	60	23
Other Costs as % of Total Cost		-	29	-	23	-	17	28
No. Animal Units		-	55.8	-	5.0	0.1	1.2	62.1
Gross Return Per Animal Unit (\$)		-	119	-	149	160	117	122
Gross Return Per \$100 Feed (\$)		-	241	-	192	-	778	238
Months Labor Used on Enterprises		-	6.2	-	1.0	0.1	0.2	7.5

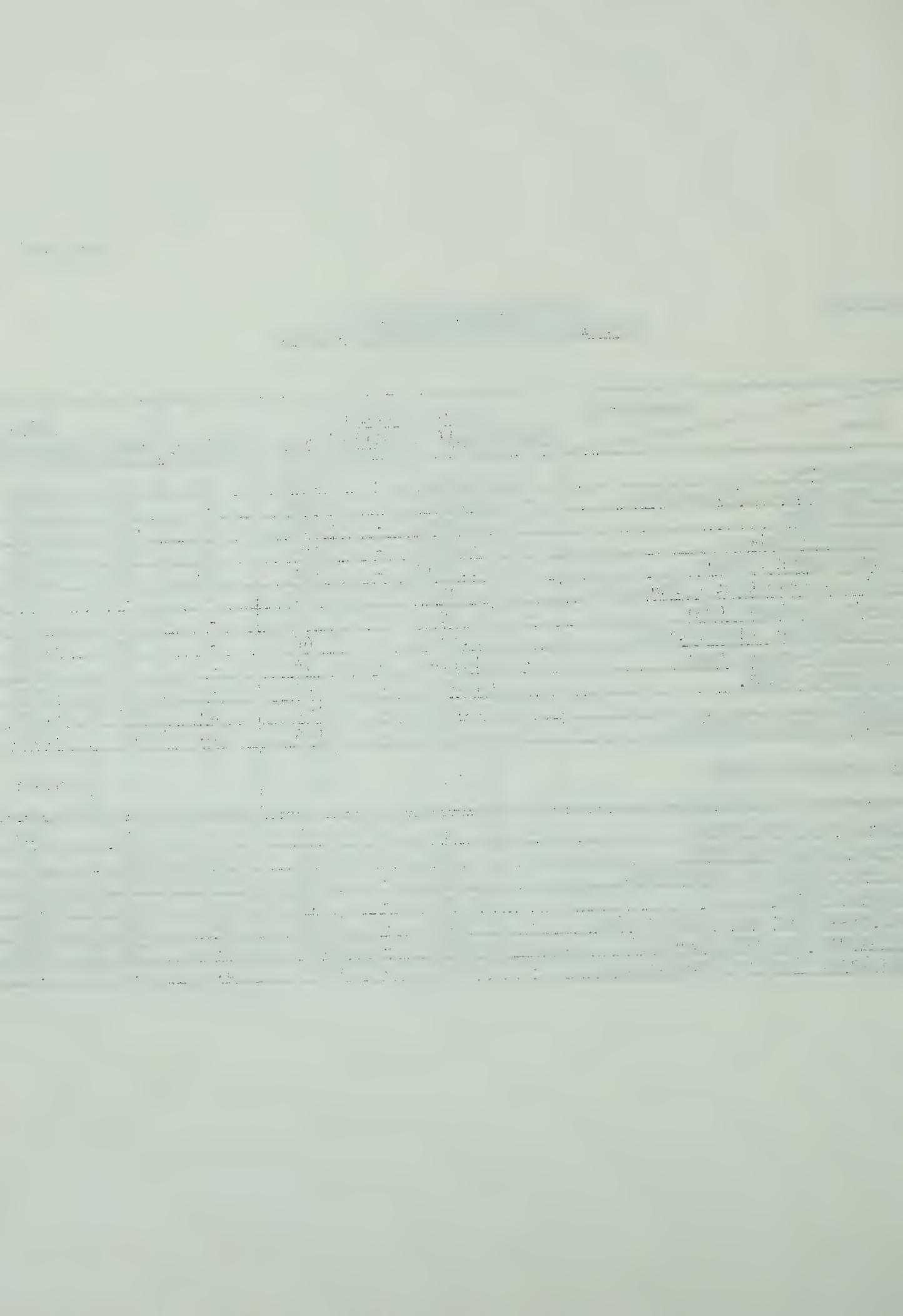


Table 11-B

PEACE RIVER DIVERSIFIED FARMS
LIVESTOCK COST AND RETURNS ANALYSIS

Item	Enterprise	Dairy	Cow-Calf	Feeder Cattle	Hogs	Poultry	Other	Total Livestock
Gross Returns		181	1,779	750	3,749	227	4	6,690
Less Total Value of Feed Fed		82	958	456	2,064	130	-	3,690
NET ABOVE FEED		99	821	294	1,685	97	4	3,000
Less Value of Labor		103	513	143	669	59	3	1,490
NET ABOVE LABOR & FEED		-4	308	151	1,016	38	1	1,510
Less Direct Cash Cost & Share Rent		3	40	61	38	8	-	150
Less Joint Variable Cost		19	217	75	222	50	-	583
NET TO OVERHEAD, RISK & MGMT.		-26	51	15	756	-20	1	777
Less Joint Overhead Cost		29	491	151	367	74	2	1,114
NET TO RISK & MGMT.		-55	-440	-136	389	-94	-1	-337
Plus Labor		103	513	143	669	59	3	1,490
ENTERPRISE LABOR EARNINGS		48	73	7	1,058	-35	2	1,153
TOTAL ENTERPRISE COSTS		236	2,219	886	3,360	321	5	7,027
Feed as % of Total Cost		35	43	51	61	41	-	53
Labor as % of Total Cost		44	23	16	20	18	60	21
Other Costs as % of Total Cost		21	34	33	19	41	40	25
No. Animal Units		1.0	18.2	3.6	21.7	0.5	0.4	45.4
Gross Return Per Animal Unit (\$)		181	93	208	173	454	10	147
Gross Return Per \$100 Feed (\$)		221	186	164	182	175	-	181
Months Labor Used on Enterprises		.5	2.3	.6	3.3	.3	-	7.5

Table 11-C

PEACE RIVER CROP FARMS
LIVESTOCK COST AND RETURNS ANALYSIS

Item	Enterprise	Dairy	Cow-Calf	Feeder Cattle	Hogs	Poultry	Other	Total Livestock
Gross Returns		139	1,115	202	735	24	14	2,229
Less Total Value of Feed Fed		118	755	55	606	25	3	1,562
NET ABOVE FEED		21	360	147	129	-1	11	667
Less Value of Labor		41	331	21	210	6	9	618
NET ABOVE LABOR & FEED		20	29	126	-81	-7	2	49
Less Direct Cash Cost & Share Rent		9	58	29	29	2	-	127
Less Joint Variable Cost		21	165	22	88	3	1	300
NET TO OVERHEAD, RISK & MGMT.		-50	-194	75	-198	-12	1	-378
Less Joint Overhead Cost		48	392	25	148	10	2	625
NET TO RISK & MGMT.		-98	-586	50	-346	-22	-1	1,003
Plus Labor		41	331	21	210	6	9	618
ENTERPRISE LABOR EARNINGS		-57	-255	71	-136	-16	8	385
TOTAL ENTERPRISE COSTS		237	1,701	152	1,081	46	15	3,232
Feed as % of Total Cost		50	44	36	56	54	20	48
Labor as % of Total Cost		17	19	14	19	13	60	19
Other Costs as % of Total Cost		33	37	50	25	33	20	33
No. Animal Units		1	11.2	0.8	5.0	0.1	0.3	18.4
Gross Return Per Animal Unit (\$)		139	100	253	147	240	47	121
Gross Return Per \$100 Feed (\$)=		118	148	357	121	96	467	143
Months Labor Used on Enterprises		0.2	1.8	0.1	1.1	0.1	0.1	3.4

MY FARM

LIVESTOCK COST AND RETURNS ANALYSIS

There is no simple and clear cut measure of effect of enterprise types or combinations on farm earnings which would be suitable for any one farm. In selecting a combination of enterprises some of the more important factors to consider are: relative profitability of different enterprises; soil types and the amounts of tillable and untiltable land; labor distribution and amounts; farm size and location relation to special markets; building space available and preferences of the operator. Complementarity and supplementarity between enterprises must also be kept in mind. (See page 4)

It is important to bear in mind that as one adds or increases an enterprise that is competitive for the resources of production (land, capital, labor managerial skill, etc.) there must be a greater return of profit or satisfaction to justify the addition or increase. Very often farm income is low because labor and managerial effort are spread too thinly over too many lines of endeavor to reap a maximum of income. However, the saying "don't put all your eggs in one basket", has merit too. A specialized farm is subject to much greater variations in income and so a farm operator who pursues a specialty must be able to withstand fluctuations in yields and in markets if he wants to be successful in his venture over the long pull.

By using existing buildings and machinery to capacity, total income is increased. With machinery, this can be accomplished by buying or renting additional land or doing custom work. Using waste land for pasture, utilizing buildings that are vacant (but still serviceable) for hogs, or poultry, etc., can also add income provided extra out of pocket costs don't exceed the extra returns expected. In adding a supplementary enterprise only variable costs must be covered (feed, drugs, etc.) The overhead costs of depreciation, interest and labor are being borne already and so anything above variable costs will boost farm profit.

Table 12 summarizes from Tables 10, 11, 11-A, 11-B, and 11-C, the relative contribution of each enterprise to labor earnings. Just the same as operators labor earnings measures the farms overall profitability, so enterprise labor earnings measure the profitability of each enterprise. The enterprise labor earnings figure differs from operators labor earnings in that it is a residual to all labor (hired and family labor as well as the operators) while operators labor earnings is a residual to the operators labor only.

CONTRIBUTION OF ENTERPRISES
TO TOTAL FARM LABOR EARNINGS

Table 12

Enterprise	Type of Farm	Dairy	Beef	Diversified	Crops	All Farms	My Farm
Crop Labor Earnings		750	960	1,735	4,549	3,342	
Dairy Labor Earnings		1,932	-	48	-57	86	
Cow-Calf Labor Earnings		-	2,275	73	-255	31	
Beef Feeder Labor Earnings		-	-	7	71	45	
Hog Labor Earnings		-77	186	1,058	-136	200	
Poultry Labor Earnings		179	16	-35	-16	-7	
Other Livestock Labor Earnings		-	109	2	8	14	
Labor & Custom Work Income		240	58	336	308	293	
Other Income		378	302	318	378	357	
Change in Supply Inventory		258	-1	-12	-30	-5	
Change in Accounts Payable		-323	-	-31	-17	-36	
TOTAL NET RETURN TO LABOR		3,337	3,905	3,499	4,803	4,320	
Hired Labor Paid		549	57	314	396	359	
Family Labor		569	295	400	172	263	
OPERATORS LABOR EARNINGS		2,219	3,553	2,785	4,235	3,698	

SUSPECTED AREAS FOR IMPROVEMENT IN MY FARM BUSINESS
(To be filled out in discussion with the farm operator)

SOME ALTERNATIVES TO CONSIDER FOR IMPROVEMENT

These alternatives can be tested by use of the partial budget technique. Several partial budget forms are included in the following pages. More are available from your District Agriculturist.

PARTIAL BUDGET FORM

Additional Annual Cost Expected

1. Fixed Costs (deprec., interest, insurance, licenses, taxes, etc.)
2. Variable Costs (repairs, feed, fuel, electricity, etc.)

Reduced Annual Receipts Expected (livestock sales, crop sales, custom work, etc.)

Sub-Total A \$ _____

Additional Annual Receipts Expected (livestock sales, crop sales, custom work, etc.)

Reduced Annual Costs Expected

1. Fixed Costs (deprec., interest, insurance, licenses, taxes, etc.)
2. Variable Costs (repairs, feed, fuel, electricity, etc.)

Sub-Total B \$ _____

ESTIMATED CHANGE IN ANNUAL NET FARM INCOME (B - A)

OTHER CONSIDERATIONS

Extra capital needed degree of risk

Extra labor to hire Time lag until income starts

Other Advantages of Proposed Change	Other Disadvantages of Proposed Change
1.	1.
2.	2.
3.	3.

PARTIAL BUDGET FORM

Additional Annual Cost Expected

1. Fixed Costs (deprec., interest, insurance, licenses, taxes, etc.)

2. Variable Costs (repairs, feed, fuel, electricity, etc.)

Reduced Annual Receipts Expected (livestock sales, crop sales, custom work, etc.)

Sub-Total A \$

Additional Annual Receipts Expected (livestock sales, crop sales, custom work, etc.)

Reduced Annual Costs Expected

1. Fixed Costs (deprec., interest, insurance, licenses, taxes, etc.)

2. Variable Costs (repairs, feed, fuel, electricity, etc.)

Sub-Total B \$

ESTIMATED CHANGE IN ANNUAL NET FARM INCOME (B - A)

OTHER CONSIDERATIONS

Extra capital needed degree of risk

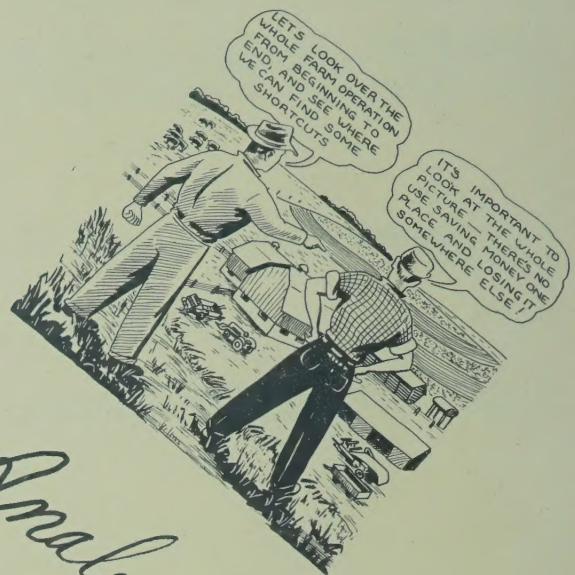
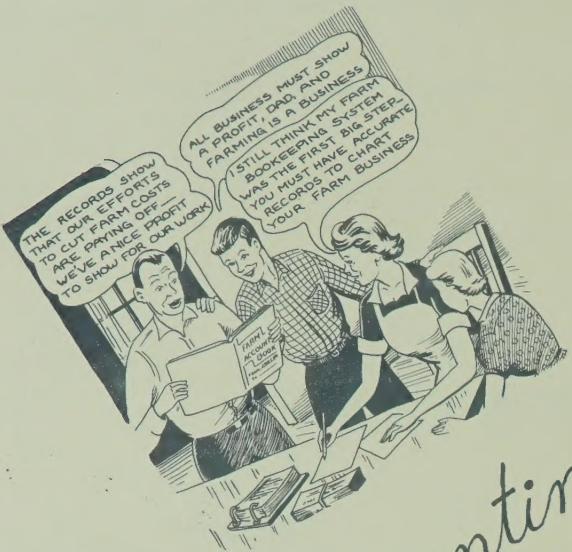
Extra labor to hire Time lag until income starts

Other Advantages of Proposed Change	Other Disadvantages of Proposed Change
1.	1.
2.	2.
3.	3.

1.	1.
2.	2.
3.	3.



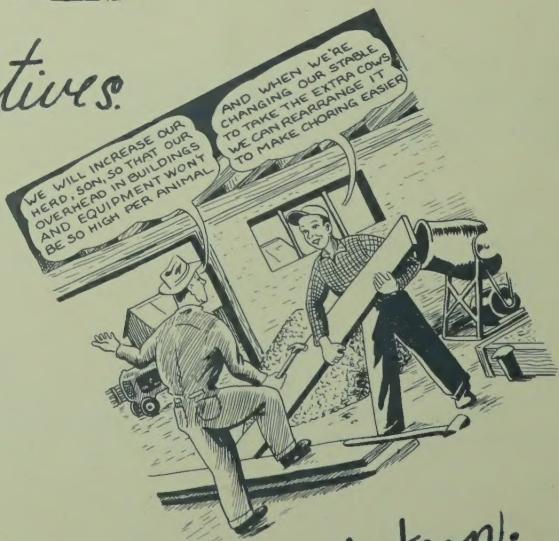
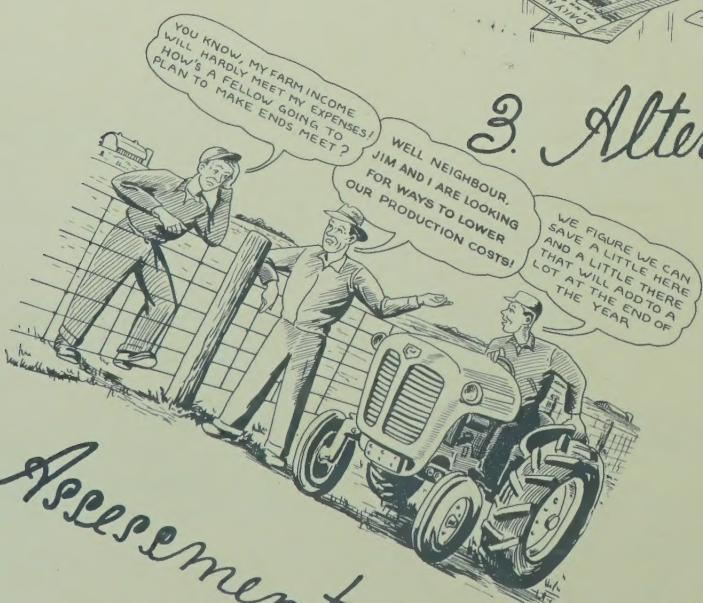
The 5 As of Management.



1. Accounting.



2. Analysis.



4. Assessment.

5. Action.